

We claim:

1. A system for processing point of sale bill electronic transactions comprising:

a point of sale terminal located at a point of sale and comprising:

5 a paper handler;

a system memory configured to store therein a template of an expected document image;

a scanner adjacent the paper handler and configured to make an electronic image of a document inserted in the paper handler;

10 an optical character recognition circuit coupled to the scanner and configured to compare the electronic image received from the scanner with the template stored in the system memory and to convert image data from the electronic image into electronic transaction data;

15 an image memory coupled to the scanner and configured to store therein the electronic image of the document;

an input / output device configured to accept transaction information relating to the document; and

a communication link coupled to the image memory and to the input / output device;

20 a remote data processing device coupled to the point of sale terminal via the communication link, comprising:

a transaction database configured to receive transaction information from the point of sale terminal;

payment processing circuitry coupled to the transaction database and

configured to send payment information to a payment service provider;
and

a remote image database coupled to the point of sale terminal and coupled to the
remote data processing device and configured to receive the electronic image
5 stored in the image memory.

2. The system of claim 1 wherein the point of sale terminal further comprises:

a magnetic detector configured to detect magnetically stored information
and to convert the magnetically stored information into electronic transaction
data.

10 3. The system of claim 2 wherein the magnetic detector is a MICR reader.

4. The system of claim 1 wherein each image stored in the image memory is
assigned a unique identifier and wherein the unique identifier is transmitted to the
remote image database along with the image.

15 5. The system of claim 1 wherein the communication link of the point of sale
terminal is re-configurable and can couple the point of sale terminal to multiple
service providers.

6. The system of claim 1 wherein the input / output device comprises a
keyboard and a display device.

7. A method for processing an in-person bill payment at a point of sale location, comprising:

identifying a biller for whom payment a payment transaction is to be received;

obtaining transaction information concerning the payment;

5 receiving payment for the bill;

assigning a transaction identifier to the transaction;

scanning at least one transaction document and generating at least one electronic image therefrom;

storing each electronic image in an image memory with an image identifier and

10 linking the image identifier to a transaction identifier;

transmitting the transaction information to a payment server;

receiving from the payment server instructions regarding the transaction; and

transmitting to an image server a copy of each electronic image and its image identifier and linked transaction identifier.

15 8. The method of claim 7 further comprising:

storing the transmitted transaction information in a transaction database;

storing the transmitted electronic image and identifiers in an image database;

forwarding selected transaction information to the biller and forwarding at least a portion of the received payment to the biller.

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9. The method of claim 7 further comprising:

detecting magnetically stored information located on the at least one transaction document and converting the magnetically stored information into electronic transaction information.

5 10. The method of claim 7 further comprising generating transaction information from said electronic image through optical character recognition.

11. The method of claim 10 wherein the transaction information is generated by comparing the electronic image to a pre-stored template containing an expected electronic image.

10 12. The method of claim 7 further comprising receiving from the payment server additional system update instructions.

13. The method of claim 12 wherein said system update instructions comprise a list of billers for whom in-person bill payment is authorized.

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14. A point of sale terminal for processing electronic transactions comprising:

paper handling means comprising a paper guide, rollers and a motor driving the rollers;

an optical detector adjacent the paper handling means and configured to capture
5 an electronic image of a document inserted in the paper handling means;

image memory coupled to the optical detector and configured to store therein the electronic image received from the optical detector;

an optical character recognition circuit coupled to the optical detector and configured to convert a portion of the electronic image into electronic transaction
10 information;

a magnetic detector adjacent the paper handling means and configured to capture magnetic information stored on the document and to convert the captured magnetic information into electronic transaction information;

an input device for receiving additional transaction information and instructions;
15 an output device for outputting transaction information, including authorization codes and instructions;

a communication circuit configured to transmit the transaction information to at least one remotely located data processing center and to transmit the electronic image stored in the image memory to an remotely located image database, the
20 communication circuit being further configured to receive authorization instructions from the data processing center.
15. The point of sale terminal of claim 14 wherein the magnetic detector is configured to read MICR code.

16. The point of sale terminal of claim 14 further comprising a printer device configured to print out a receipt for payment of the bill, the receipt including a portion of the transaction information.

17. The point of sale terminal of claim 14 further comprising:

- 5 a slot for receiving therein a card, the card including a magnetic storage medium and a second magnetic detector, adjacent the slot, and configured to read the information stored on the magnetic storage medium.

18. The point of sale terminal of claim 14 wherein the input device comprises a keyboard.

- 10 19. The point of sale terminal of claim 14 wherein the output device comprises an LCD or LED or CRT display.

20. The point of sale terminal of claim 14 further comprising a bar code reader adjacent the paper handler and configured to detect optically stored information on the document.

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